

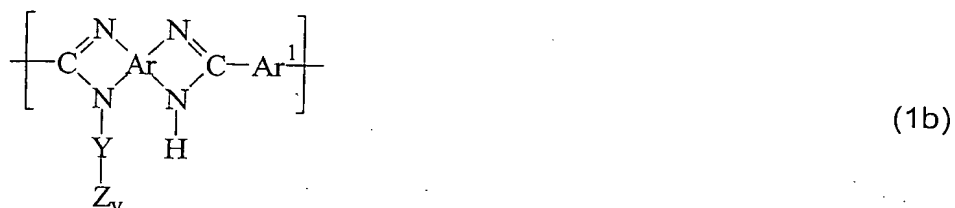
## Abstract

Functionalized polyazoles, process for preparing them and their use

The present invention relates to functionalized polyazoles comprising recurring imidazole units of the general formula



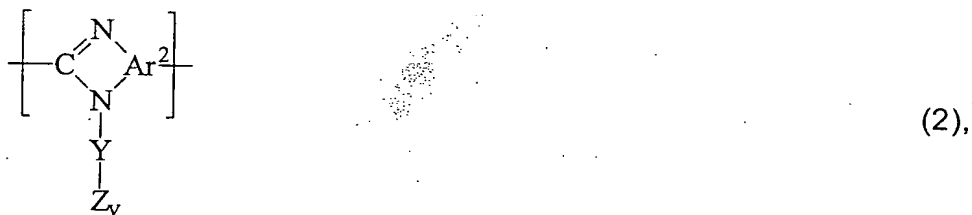
and/or



and/or



and/or



where the radicals Ar, Ar<sup>1</sup> and Ar<sup>2</sup> are tetravalent, divalent or trivalent aromatic or heteroaromatic groups,

Y is a bond or a group having from 1 to 20 carbon atoms,

v is an integer from 1 to 10 and

Z is a group of the general formula



or



where  $\text{R}^1$  and  $\text{R}^2$  are each, independently of one another, a hydrogen atom or a group having from 1 to 20 carbon atoms, characterized in that the polyazole is soluble in organic solvents. Furthermore, the present invention relates to intermediates and to a process for preparing the polyazoles. Furthermore, the present invention describes polymer electrolyte membranes and fuel cells in which the polyazoles of the invention are present.